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 $({\bf 54})$  Title: PRIMERS, METHODS AND KITS FOR DETECTING KILLER-CELL IMMUNOGLOBULIN-LIKE RECEPTOR ALLELES

(57) Abstract: Embodiments of the present invention describe primer pairs, methods and kits for identifying and/or detecting killer-cell immunoglobulin-like receptor (KIR) alleles. The present primer sets include one or more primer pairs that can produce amplicons specific for an individual KIR allele and that are less than 1000 bp in size. Additionally, the primer sets can target intra-exon and/or extracellular domains of KIR alleles for amplification.



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/079254 ~ CLASSIFICATION OF SUBJECT MATTER IPC(7) C07H 21/04; C12Q 1/68; C12P 19/34 US CL 536/24.33; 435/6, 91.2 According to International Patent Classification (IPC) or to both national classification and IPC FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S.: 536/24.33; 435/6, 91.2 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet C. DOCUMENTS CONSIDERED TO BE RELEVANT Category \* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X SHILLING, H.G. et al. Allelic polymorphism synergizes with variable gene content to 1-17 individualize human KIR genotype. J Immunology, Vol. 168, pp. 2307-2315, 2002. CHAN, H.W. DNA methylation maintains allele-specific KIR gene expression in human Х 1-17 natural killer cells. J Experimental Med., Vol. 197, No.2, January 20, 2003. Y Stratagene Catalog. Gene characterization kits. Stratagene Catalog, pp.39, 1988. 18-19 Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: later document published after the international filing date or priority date and not in conflict with the application but cited to understand the "A" document defining the general state of the art which is not considered to be principle or theory underlying the invention of particular relevance "X" document of particular relevance; the claimed invention cannot be "E" earlier application or patent published on or after the international filing date considered novel or cannot be considered to involve an inventive step when the document is taken alone document which may throw doubts on priority claim(s) or which is cited to "L" establish the publication date of another citation or other special reason (as "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination "0" document referring to an oral disclosure, use, exhibition or other means being obvious to a person skilled in the art "&" document published prior to the international filing date but later than the document member of the same patent family priority date claimed Date of mailing of the international search report Date of the actual completion of the international search 23 December 2004 (23.12.2004) Authorized officer Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Suryaprabha Chundur Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Telephone No. 703-308-0196

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